

re-run

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/803,055
Source: IFW0
Date Processed by STIC: 3/31/04

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IFWO

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/803,055

DATE: 03/03/2005
TIME: 09:31:38

Input Set : N:\AMC\US10803055.raw
Output Set: N:\CRF4\03032005\J803055.raw

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1 <110> APPLICANT: Universite de Liege
2 <120> TITLE OF INVENTION: Cold-active beta galactosidase, the process for its
3 preparation and the use thereof
4 <130> FILE REFERENCE: Beta-gal
5 <140> CURRENT APPLICATION NUMBER: US/10/803,055
6 <141> CURRENT FILING DATE: 2004-03-18
7 <150> PRIOR APPLICATION NUMBER: US/09/501,136
8 <151> PRIOR FILING DATE: 2000-02-09
9 <160> NUMBER OF SEQ ID NOS: 2
10 <170> SOFTWARE: PatentIn Ver. 2.1
12 <210> SEQ ID NO: 1
13 <211> LENGTH: 3171
14 <212> TYPE: DNA
15 <213> ORGANISM: Pseudoalteromonas haloplanktis
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| | | | | |
|-----|---|-----|-----|-----|
| 95 | 1 | 5 | 10 | 15 |
| 96 | Ile Thr Val Gln Val Asn Gln Val Lys Ala His Ser Pro Leu Asn Gly | | | |
| 97 | 20 | 25 | 30 | |
| 98 | Phe Lys Thr Ile Glu Asp Ala Arg Glu Asn Thr Gln Ser Gln Lys Lys | | | |
| 99 | 35 | 40 | 45 | |
| 100 | Ser Leu Asn Gly Gln Trp Asp Phe Lys Leu Phe Asp Lys Pro Glu Ala | | | |
| 101 | 50 | 55 | 60 | |
| 102 | Val Asp Glu Ser Leu Leu Tyr Glu Lys Ile Ser Lys Glu Leu Ser Gly | | | |
| 103 | 65 | 70 | 75 | 80 |
| 104 | Asp Trp Gln Ser Ile Thr Val Pro Ser Asn Trp Gln Leu His Gly Phe | | | |
| 105 | 85 | 90 | 95 | |
| 106 | Asp Lys Pro Ile Tyr Cys Asn Val Lys Tyr Pro Phe Ala Val Asn Pro | | | |
| 107 | 100 | 105 | 110 | |
| 108 | Pro Phe Val Pro Ser Asp Asn Pro Thr Gly Cys Tyr Arg Thr Glu Phe | | | |
| 109 | 115 | 120 | 125 | |
| 110 | Thr Ile Thr Pro Glu Gln Leu Thr Gln Arg Asn His Ile Ile Phe Glu | | | |
| 111 | 130 | 135 | 140 | |
| 112 | Gly Val Asn Ser Ala Phe His Leu Trp Cys Asn Gly Gln Trp Val Gly | | | |
| 113 | 145 | 150 | 155 | 160 |
| 114 | Tyr Ser Gln Asp Ser Arg Leu Pro Ser Glu Phe Asp Leu Ser Glu Leu | | | |
| 115 | 165 | 170 | 175 | |
| 116 | Leu Val Val Gly Thr Asn Arg Ile Ala Val Met Val Ile Arg Trp Ser | | | |
| 117 | 180 | 185 | 190 | |
| 118 | Asp Gly Ser Tyr Leu Glu Asp Gln Asp Met Trp Trp Leu Ser Gly Ile | | | |
| 119 | 195 | 200 | 205 | |
| 120 | Phe Arg Asp Val Asn Leu Leu Thr Lys Pro Gln Ser Gln Ile Arg Asp | | | |
| 121 | 210 | 215 | 220 | |
| 122 | Val Phe Ile Thr Pro Asp Leu Asp Ala Cys Tyr Arg Asp Ala Thr Leu | | | |
| 123 | 225 | 230 | 235 | 240 |
| 124 | His Ile Lys Thr Ala Ile Asn Ala Pro Asn Asn Tyr Gln Val Ala Val | | | |
| 125 | 245 | 250 | 255 | |
| 126 | Gln Ile Phe Asp Gly Lys Thr Ser Leu Cys Glu Pro Lys Ile Gln Ser | | | |
| 127 | 260 | 265 | 270 | |
| 128 | Thr Asn Asn Lys Arg Val Asp Glu Lys Gly Gly Trp Ser Asp Val Val | | | |
| 129 | 275 | 280 | 285 | |
| 130 | Phe Gln Thr Ile Ala Ile Arg Ser Pro Lys Lys Trp Thr Ala Glu Thr | | | |
| 131 | 290 | 295 | 300 | |
| 132 | Pro Tyr Leu Tyr Arg Cys Val Val Ser Leu Leu Asp Glu Gln Gly Asn | | | |
| 133 | 305 | 310 | 315 | 320 |
| 134 | Thr Val Asp Val Glu Ala Tyr Asn Ile Gly Phe Arg Lys Val Glu Met | | | |
| 135 | 325 | 330 | 335 | |
| 136 | Leu Asn Gly Gln Leu Cys Val Asn Gly Lys Pro Leu Leu Ile Arg Gly | | | |
| 137 | 340 | 345 | 350 | |
| 138 | Val Asn Arg His Glu His His Pro Glu Asn Gly His Ala Val Ser Thr | | | |
| 139 | 355 | 360 | 365 | |
| 140 | Ala Asp Met Ile Glu Asp Ile Lys Leu Met Lys Gln Asn Asn Phe Asn | | | |
| 141 | 370 | 375 | 380 | |
| 142 | Ala Val Arg Thr Ala His Tyr Pro Asn His Pro Leu Phe Tyr Glu Leu | | | |
| 143 | 385 | 390 | 395 | 400 |

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 146 His Gly Met Phe Pro Met Gly Arg Leu Ala Ser Asp Pro Leu Trp Ala
 147 420 425 430
 148 Gly Ala Phe Met Ser Arg Tyr Thr Gln Met Val Glu Arg Asp Lys Asn
 149 435 440 445
 150 His Ala Ser Ile Ile Trp Ser Leu Gly Asn Glu Cys Gly His Gly
 151 450 455 460
 152 Ala Asn His Asp Ala Met Tyr Gly Trp Ser Lys Ser Phe Asp Pro Ser
 153 465 470 475 480
 154 Arg Pro Val Gln Tyr Glu Gly Gly Ala Asn Thr Thr Ala Thr Asp
 155 485 490 495
 156 Ile Ile Cys Pro Met Tyr Ser Arg Val Asp Thr Asp Ile Lys Asp Asp
 157 500 505 510
 158 Ala Val Pro Lys Tyr Ser Ile Lys Lys Trp Leu Ser Leu Pro Gly Glu
 159 515 520 525
 160 Thr Arg Pro Leu Ile Leu Cys Glu Tyr Ala His Ala Met Gly Asn Ser
 161 530 535 540
 162 Leu Gly Ser Phe Asp Asp Tyr Trp Gln Ala Phe Arg Glu Tyr Pro Arg
 163 545 550 555 560
 164 Leu Gln Gly Gly Phe Ile Trp Asp Trp Val Asp Gln Gly Leu Ser Lys
 165 565 570 575
 166 Ile Asp Glu Asn Gly Lys His Tyr Trp Ala Tyr Gly Gly Asp Phe Gly
 167 580 585 590
 168 Asp Glu Leu Asn Asp Arg Gln Phe Cys Ile Asn Gly Leu Leu Phe Pro
 169 595 600 605
 170 Asp Arg Thr Pro His Pro Ser Leu Phe Glu Ala Lys Tyr Ser Gln Gln
 171 610 615 620
 172 His Leu Gln Phe Thr Leu Arg Glu Gln Asn Gln Asn Gln Asn
 173 625 630 635 640
 174 Gln Tyr Ser Ile Asp Val Phe Ser Asp Tyr Val Phe Arg His Thr Asp
 175 645 650 655
 176 Asn Glu Lys Leu Val Trp Gln Leu Ile Gln Asn Gly Val Cys Val Glu
 177 660 665 670
 178 Gln Gly Glu Met Ala Leu Asn Ile Ala Pro Gln Ser Thr His Thr Leu
 179 675 680 685
 180 Thr Ile Lys Thr Lys Thr Ala Phe Glu His Gly Ala Gln Tyr Tyr Leu
 181 690 695 700
 182 Asn Leu Asp Val Ala Leu Ile Asn Asp Ser His Phe Ala Asn Ala Asn
 183 705 710 715 720
 184 His Val Met Asp Ser Glu Gln Phe Lys Leu Ile Asn Ser Asn Asn Leu
 185 725 730 735
 186 Asn Ser Lys Ser Phe Ala Ser Ala Thr Glu Lys Ser Val Ile Ser Val
 187 740 745 750
 188 Asn Glu Thr Asp Ser His Leu Ser Ile Glu Asn Asn Thr Phe Lys Leu
 189 755 760 765
 190 Val Phe Asn Gln Gln Ser Gly Leu Ile Glu Gln Trp Leu Gln Asp Asp
 191 770 775 780
 192 Thr Gln Val Ile Ser Ser Pro Leu Val Asn Phe Tyr Arg Ala Pro

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| 195 | | | | | 805 | | | | 810 | | | | | | 815 | |
| 196 | Ala | Trp | Glu | Ala | Arg | Trp | Ser | Arg | Ala | Gly | Ile | Gly | Gln | Trp | Gln | Arg |
| 197 | | | | | 820 | | | | 825 | | | | | | 830 | |
| 198 | Thr | Cys | Ser | Ser | Ile | Asn | Ala | Val | Gln | Ser | Ser | Val | Asp | Val | Arg | Ile |
| 199 | | | | | 835 | | | | 840 | | | | | | 845 | |
| 200 | Thr | Cys | Val | Phe | Asn | Tyr | Glu | Phe | Asn | Gly | Val | Leu | Gln | Ala | Gln | Thr |
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| 202 | Gln | Trp | Leu | Tyr | Thr | Leu | Asn | Asn | Thr | Gly | Thr | Ile | Ser | Leu | Asn | Val |
| 203 | | | | | 865 | | | | 870 | | | | | | 880 | |
| 204 | Asp | Val | Asn | Leu | Asn | Asp | Thr | Leu | Pro | Pro | Met | Pro | Arg | Ile | Gly | Leu |
| 205 | | | | | 885 | | | | 890 | | | | | | 895 | |
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| 207 | | | | | 900 | | | | 905 | | | | | | 910 | |
| 208 | Leu | Gly | Pro | Phe | Glu | Asn | Tyr | Pro | Asp | Arg | Lys | Ser | Ala | Ala | Arg | Phe |
| 209 | | | | | 915 | | | | 920 | | | | | | 925 | |
| 210 | Gly | Tyr | Tyr | Ser | Leu | Ser | Leu | Asn | Glu | Leu | Tyr | Thr | Pro | Tyr | Ile | Phe |
| 211 | | | | | 930 | | | | 935 | | | | | | 940 | |
| 212 | Pro | Thr | Asp | Asn | Gly | Leu | Arg | Ser | Asp | Cys | Gln | Leu | Leu | Ser | Ile | Asn |
| 213 | | | | | 945 | | | | 950 | | | | | | 960 | |
| 214 | Asn | Leu | Ile | Val | Thr | Gly | Ala | Phe | Leu | Phe | Ala | Ala | Ser | Glu | Tyr | Ser |
| 215 | | | | | 965 | | | | 970 | | | | | | 975 | |
| 216 | Gln | Asn | Met | Leu | Thr | Gln | Ala | Lys | His | Thr | Asn | Glu | Leu | Ile | Ala | Asp |
| 217 | | | | | 980 | | | | 985 | | | | | | 990 | |
| 218 | Asp | Cys | Ile | His | Val | His | Ile | Asp | His | Gln | His | Met | Gly | Val | Gly | Gly |
| 219 | | | | | 995 | | | | 1000 | | | | | | 1005 | |
| 220 | Asp | Asp | Ser | Trp | Ser | Pro | Ser | Thr | His | Lys | Glu | Tyr | Leu | Leu | Glu | Gln |
| 221 | | | | | 1010 | | | | 1015 | | | | | | 1020 | |
| 222 | Lys | Asn | Tyr | Asn | Tyr | Ser | Leu | Thr | Leu | Thr | Gly | Gly | Ile | Thr | Thr | |
| 223 | | | | | 1025 | | | | 1030 | | | | | | 1035 | |

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